Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A filter calibration circuit, comprising:

a comparator operable to generate a comparator output based on a filter output amplitude signal and a reference amplitude signal, the filter output amplitude signal corresponding to an amplitude of an output signal produced by a filter circuit, which comprises capacitive components, that is to be calibrated to a desired frequency; and

a calibration logic unit, separate from the comparator, operable to receive the comparator output and produce a digital component code corresponding to switches associated with the capacitive components in the filter circuit to be used by the filter circuit in adjusting a combined value of the capacitive ~~one or more~~ components ~~values~~ in the filter circuit by selectively turning on or off one or more of the switches associated with the capacitive components to control a number of the capacitive components active in the filter circuit to calibrate the filter circuit to the desired frequency;

~~a DC voltage source operable to produce the reference amplitude signal; and~~

~~a variable gain amplifier, the calibration logic unit operable to vary a gain of the variable gain amplifier based on the comparator output~~.

2. (Original) The filter calibration circuit of claim 1, further comprising:

an amplitude detector operable to receive the filter circuit output signal and generate the filter output amplitude signal based on an amplitude of the filter circuit output signal at the desired frequency.

3. (Original) The filter calibration circuit of claim 1, wherein:

the filter circuit includes an LC tank circuit.

4. (Original) The filter calibration circuit of claim 1, wherein:

the calibration logic unit includes a digital signal processor.

5. (Original) The filter calibration circuit of claim 4, wherein:

the digital signal processor includes the comparator.

6. (Original) The filter calibration circuit of claim 1, wherein:

the calibration logic unit includes a logic circuit.

7. (Original) The filter calibration circuit of claim 6, wherein:

the logic circuit includes the comparator.

8. (Cancelled).

9. (Currently Amended) The filter calibration circuit of claim [[8]]1, wherein:

the capacitive components are ~~capacitance varied is~~ monolithically fabricated on a semiconductor substrate.

10. (Cancelled).

11. (Original) The filter calibration circuit of claim 1, further comprising:

a digital-to-analog converter operable to receive a digital reference amplitude code and produce the reference amplitude signal.

12. (Original) The filter calibration circuit of claim 11, wherein:

the calibration logic unit is operable to produce the digital reference amplitude code based on the comparator output.

13.-15. (Cancelled)

16. (Original) The filter calibration circuit of claim 1, wherein:

the filter calibration circuit is operable to calibrate the filter circuit to the desired frequency automatically when the filter calibration circuit is connected to a power source.

17. (Original) The filter calibration circuit of claim 1, wherein:

the filter calibration circuit is operable to calibrate the filter circuit to the desired frequency without requiring a reduction in a quality factor of the filter circuit.

18. (Original) The filter calibration circuit of claim 1, wherein:

the filter calibration circuit is operable to calibrate the filter circuit to the desired frequency without requiring manual calibration of the filter circuit.

19. (Original) The filter calibration circuit of claim 1, wherein:

the filter calibration circuit is compliant with any of IEEE standards 802.11, 802.11a, 802.11b, 802.11e, 802.11g, 802.11h, 802.11i, 802.11n, and 802.16.

20. (Currently Amended) A filter calibration circuit, comprising:

comparing means for generating a comparator output based on a filter output amplitude signal and a reference amplitude signal, the filter output amplitude signal corresponding to an amplitude of an output signal produced by a filtering means, which comprises capacitive means, that is to be calibrated to a desired frequency; and

code generating means, separate from the comparing means, for receiving the comparator output and producing a digital component code corresponding to switching means associated with the capacitive means to be used by the filtering means in adjusting a combined value of the capacitive ~~one or more~~ component means ~~values~~ in the filtering means by selectively turning on or off one or more of the switching means associated with the capacitive means to control a number of the capacitive means active in the filtering means to calibrate the filtering means to the desired frequency;

~~sourcing means for producing the reference amplitude signal; and~~

~~amplifying means, the code generating means operable to vary a gain of the amplifying means based on the comparator output~~.

21. (Original) The filter calibration circuit of claim 20, further comprising:

detecting means operable to receive the filtering means output signal, detect an amplitude of the filtering means output signal at the desired frequency, and generate the filter output amplitude signal based on the detected amplitude.

22. (Original) The filter calibration circuit of claim 20, wherein:

the filtering means includes an LC tank circuit means.

23. (Original) The filter calibration circuit of claim 20, wherein:

the code generating means includes a digital signal processing means.

24. (Original) The filter calibration circuit of claim 23, wherein:

the digital signal processing means includes the comparing means.

25. (Original) The filter calibration circuit of claim 20, wherein:
the code generating means includes a logic circuit means.

26. (Original) The filter calibration circuit of claim 25, wherein:
the logic circuit means includes the comparing means.

27. (Cancelled).

28. (Currently Amended) The filter calibration circuit of claim [[27]]20, wherein:
the capacitive means are ~~capacitance varied is~~ monolithically fabricated on a semiconductor substrate.

29. (Cancelled).

30. (Original) The filter calibration circuit of claim 20, further comprising:
conversion means for receiving a digital reference
amplitude code and producing the reference amplitude signal.

31. (Original) The filter calibration circuit of claim 30, wherein:
the code generating means is operable to produce the digital reference amplitude code based on the comparator output.

32.-34. (Cancelled)

35. (Original) The filter calibration circuit of claim 20, wherein:
the filter calibration circuit is operable to calibrate the filtering means to the desired frequency automatically when the filter calibration circuit is connected to a power source means.

36. (Original) The filter calibration circuit of claim 20, wherein:

the filter calibration circuit is operable to calibrate the filtering means to the desired frequency without requiring a reduction in a quality factor of the filtering means.

37. (Original) The filter calibration circuit of claim 20, wherein:

the filter calibration circuit is operable to calibrate the filtering means to the desired frequency without requiring manual calibration of the filtering means.

38. (Original) The filter calibration circuit of claim 20, wherein:

the filter calibration circuit is compliant with any of IEEE standards 802.11, 802.11a, 802.11b, 802.11e, 802.11g, 802.11h, 802.11i, 802.11n, and 802.16.

39. (Currently Amended) A method for calibrating a filter circuit, which comprises capacitive components, the filter circuit receiving an input signal and producing a filtered output signal, the method comprising:

generating a comparator output based on a filter output amplitude signal and a reference amplitude signal, the filter output amplitude signal corresponding to an amplitude of the filtered output signal at a desired frequency;

generating a digital component code corresponding to switches associated with the capacitive components in the filter circuit based on the comparator output; and

adjusting a combined value of the capacitive ~~one or more~~ components ~~values~~ in the filter circuit by selectively turning on or off one or more of the switches associated with the capacitive components to control a number of the capacitive components active in the filter circuit based on the digital component code to calibrate the filter circuit at the desired frequency;

~~producing a fixed DC reference amplitude signal; and~~

~~varying a gain based on the comparator output~~.

40. (Original) The method of claim 39, further comprising:

generating the filter output amplitude signal based on an amplitude of the filtered output signal at the desired frequency.

41. (Cancelled).

42. (Original) The method of claim 41, wherein:

generating the comparator output includes digitally generating the comparator output.

43. (Cancelled).

44. (Currently Amended) The method of claim [[43]]39, wherein:

adjusting the combined value of the capacitive components comprises turning on or off one or more of the switches associated with ~~a capacitance includes adjusting~~ the capacitive components ~~a capacitance~~ monolithically fabricated on a semiconductor substrate.

45. (Cancelled).

46. (Original) The method of claim 39, further comprising:

producing the reference amplitude signal based on a digital reference amplitude code.

47. (Original) The method of claim 46, further comprising:

producing the digital reference amplitude code based on the comparator output.

48.-50. (Cancelled)

51. (Original) The method of claim 39, further comprising:

calibrating the filter circuit automatically when the filter circuit is connected to a power source.

52. (Original) The method of claim 39, further comprising:

calibrating the filter circuit without requiring a reduction in a quality factor of the filter circuit.

53. (Original) The method of claim 39, further comprising:

calibrating the filter circuit without requiring manual calibration of the filter circuit.

54. (Original) The method of claim 39, wherein:

the method is compliant with any of IEEE standards 802.11, 802.11a, 802.11b, 802:11e, 802.11g, 802.11h, 802.11i, 802.11n, and 802.16.

55. (Currently Amended) A wireless transceiver, comprising:

a transmitter operable to transmit a modulated carrier signal, the transmitter including a filter circuit, which comprises capacitive components, operable to filter the modulated carrier signal and a calibration circuit operable to calibrate the filter circuit to a desired frequency, the calibration circuit including,

_____a comparator operable to generate a comparator output based on a filter output amplitude signal and a reference amplitude signal, the filter output amplitude signal corresponding to an amplitude of an output signal produced by the filter circuit; and

_____a calibration logic unit, separate from the comparator, operable to receive the comparator output and produce a digital component code corresponding to switches associated with the capacitive components in the filter circuit to be used by the filter circuit in adjusting a combined value of the capacitive ~~one or more~~ components ~~values~~ in the filter circuit by selectively turning on or off one or more of the switches associated with the capacitive components to control a number of the capacitive components active in the filter circuit to calibrate the filter circuit to the desired frequency;

~~a DC voltage source operable to produce the reference amplitude signal; and~~

~~a variable-gain amplifier, the calibration logic unit operable to vary a gain of the variable-gain amplifier based on the comparator output~~.

56. (Original) The wireless transceiver of claim 55, wherein the calibration circuit includes:

an amplitude detector operable to receive the filter circuit output signal and generate the filter output amplitude signal based on an amplitude of the filter circuit output signal at the desired frequency.

57. (Original) The wireless transceiver of claim 55, wherein:
the filter circuit includes an LC tank circuit.

58. (Original) The wireless transceiver of claim 55, wherein:
the calibration logic unit includes a digital signal processor.

59. (Original) The wireless transceiver of claim 58, wherein:
the digital signal processor includes the comparator.

60. (Original) The wireless transceiver of claim 55, wherein:
the calibration logic unit includes a logic circuit.

61. (Original) The wireless transceiver of claim 60, wherein:
the logic circuit includes the comparator.

62. (Cancelled).

63. (Currently Amended) The wireless transceiver of claim [[62]]55, wherein:
the capacitive components are ~~capacitance varied is~~ monolithically fabricated on a semiconductor substrate.

64. (Cancelled).

65. (Original) The wireless transceiver of claim 55, wherein the calibration circuit includes:

a digital-to-analog converter operable to receive a digital reference amplitude code and produce the reference amplitude signal.

66. (Original) The wireless transceiver of claim 65, wherein:

the calibration logic unit is operable to produce the digital reference amplitude code based on the comparator output.

67.-69. (Cancelled)

70. (Original) The wireless transceiver of claim 55, wherein:

the calibration circuit is operable to calibrate the filter circuit to the desired frequency automatically when the calibration circuit is connected to a power source.

71. (Original) The wireless transceiver of claim 55, wherein:

the calibration circuit is operable to calibrate the filter circuit to the desired frequency without requiring a reduction in a quality factor of the filter circuit.

72. (Original) The wireless transceiver of claim 55, wherein:

the calibration circuit is operable to calibrate the filter circuit to the desired frequency without requiring manual calibration of the filter circuit.

73. (Original) The wireless transceiver of claim 55, wherein:

the wireless transceiver is compliant with any of IEEE standards 802.11, 802.11a, 802.11b, 802.11e, 802.11g, 802.11h, 802.11i, 802:11n, and 802.16.

74. (Currently Amended) A wireless transceiver, comprising:

transmitting means for transmitting a modulated carrier signal, the transmitting means including a filtering means, which comprises capacitive means for filtering the modulated carrier signal and calibrating means for calibrating the filtering means to a desired frequency, the calibrating means including,

_____comparing means for generating a comparator output based on a filter output amplitude signal and a reference amplitude signal, the filter output amplitude signal corresponding to an amplitude of an output signal produced by the filtering means; and

_____code generating means, separate from the comparing means, for receiving the comparator output and producing a digital component code corresponding to switching means associated with the capacitive means in the filtering means to be used by the filtering means in adjusting a combined value of the capacitive means ~~one or more component values~~ in the filtering means, by selectively turning on or off one or more of the switching means associated with the capacitive means to control a number of the capacitive means active in the filtering means to calibrate the filtering means to the desired frequency;

~~sourcing means for producing the reference amplitude signal; and~~

~~amplifying means, the code generating means operable to vary a gain of the amplifying means based on the comparator output~~.

75. (Original) The wireless transceiver of claim 74, wherein the calibrating means includes:

detecting means operable to receive the filtering means output signal, detect an amplitude of the filtering means output signal at the desired frequency, and generate the filter output amplitude signal based on the detected amplitude.

76. (Original) The wireless transceiver of claim 74, wherein:

the filtering means includes an LC tank circuit means.

77. (Original) The wireless transceiver of claim 74, wherein:

the code generating means includes a digital signal processing means.

78. (Original) The wireless transceiver of claim 77, wherein:

the digital signal processing means includes the comparing means.

79. (Original) The wireless transceiver of claim 74, wherein:

the code generating means includes a logic circuit means.

80. (Original) The wireless transceiver of claim 79, wherein:

the logic circuit means includes the comparing means.

81. (Cancelled).

82. (Currently Amended) The wireless transceiver of claim [[81]]74, wherein:

the capacitive means are ~~capacitance varied is~~ monolithically fabricated on a semiconductor substrate.

83. (Cancelled).

84. (Original) The wireless transceiver of claim 74, wherein the calibrating means includes:

conversion means for receiving a digital reference amplitude code and producing the reference amplitude signal.

85. (Original) The wireless transceiver of claim 84, wherein:

the code generating means is operable to produce the digital reference amplitude code based on the comparator output.

86.-88. (Cancelled)

89. (Original) The wireless transceiver of claim 74, wherein:

the calibrating means is operable to calibrate the filtering means to the desired frequency automatically when the calibrating means is connected to a power source means.

90. (Original) The wireless transceiver. of claim 74, wherein:

the calibrating means is operable to calibrate the filtering means to the desired frequency without requiring a reduction in a quality factor of the filtering means.

91. (Original) The wireless transceiver of claim 74, wherein:

the calibrating means is operable to calibrate the filtering means to the desired frequency without requiring manual calibration of the filtering means.

92. (Original) The wireless transceiver of claim 74, wherein:

the wireless transceiver is compliant with any of IEEE standards 802.11, 802.11x, 802.11b, 802.11e, 802.11g, 802.11h, 802.11i, 802.11n, and 802.16.

93. (New) The filter calibration circuit of claim 1, further comprising:

a DC voltage source operable to produce the reference amplitude signal; and

a variable-gain amplifier, the calibration logic unit operable to vary a gain of the variable-gain amplifier based on the comparator output.

94. (New) The filter calibration circuit of claim 20, further comprising:

sourcing means for producing the reference amplitude signal; and

amplifying means, the code generating means operable to vary a gain of the amplifying means based on the comparator output.

95. (New) The method of claim 39, further comprising:

producing a fixed DC reference amplitude signal; and

varying a gain based on the comparator output.

96. (New) The wireless transceiver of claim 55, further comprising:

a DC voltage source operable to produce the reference amplitude signal; and

a variable-gain amplifier, the calibration logic unit operable to vary a gain of the variable-gain amplifier based on the comparator output.

97. (New) The wireless transceiver of claim 74, further comprising:

sourcing means for producing the reference amplitude signal; and

amplifying means, the code generating means operable to vary a gain of the amplifying means based on the comparator output.